AMG-13 RTI Update

Presented to

Architecture Management Group

AMG 13

Alexandria, VA

17-18 July 1996

James Calvin, MIT Lincoln Laboratory

Richard Weatherly, MITRE

jcalvin@ll.mit.edu

weather@mitre.org

DMSO HLA RTI

Activities since AMG-12

- RTI Baseline effort support
  - 0.33
  - 0.33a
  - 0.33e
- Buddy support and visits
- RTI 1.0 assessment and plan
  - conducted experiments
  - stand down period for design review

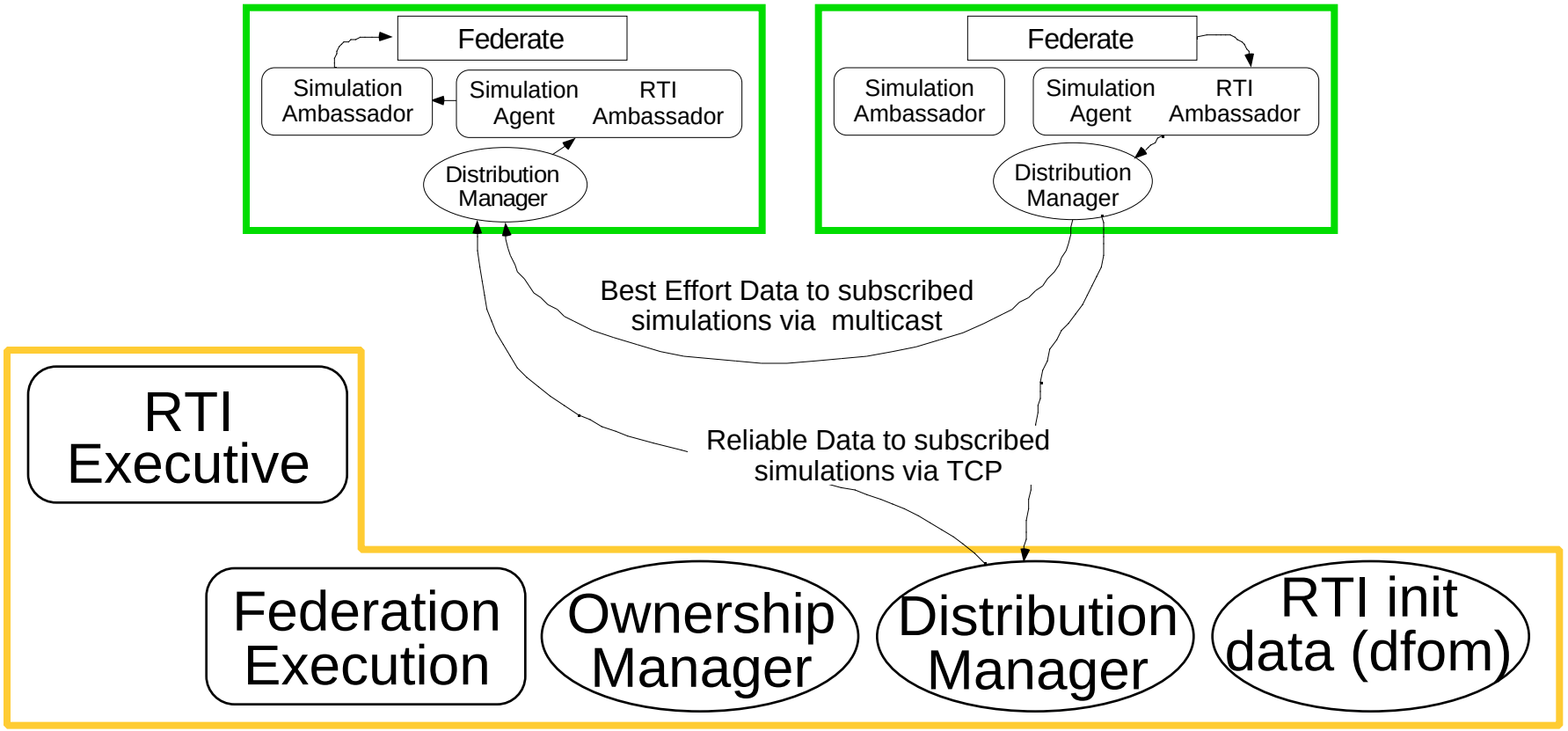
DMSO
HLA RTI

Current activities

- On-going buddy support
- I/F Specification review team
  - Assist in I/F spec 1.0 baseline effort
  - Assist in API 1.0 baseline effort
- RTI 1.0
  - Design and planning underway
  - Development on portions well below the API

DMSO
HLA RTI

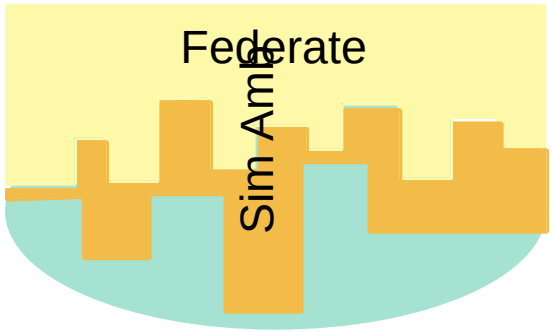
RTI 0.3x Architecture



DMSO HLA RTI

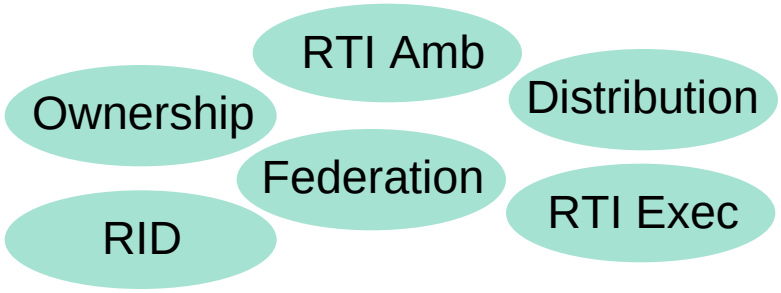
7/29/96

Directly Linked RTI Experiment

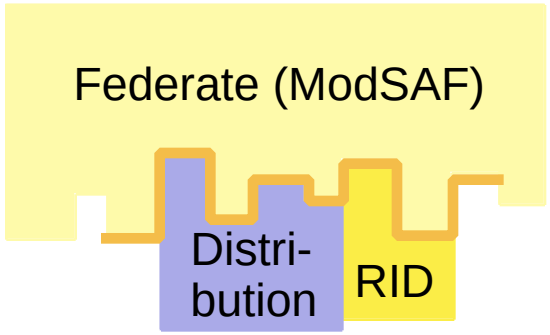


RTI 0.32/e

CORBA objects/communication



“The experiment”



DMSO HLA RTI

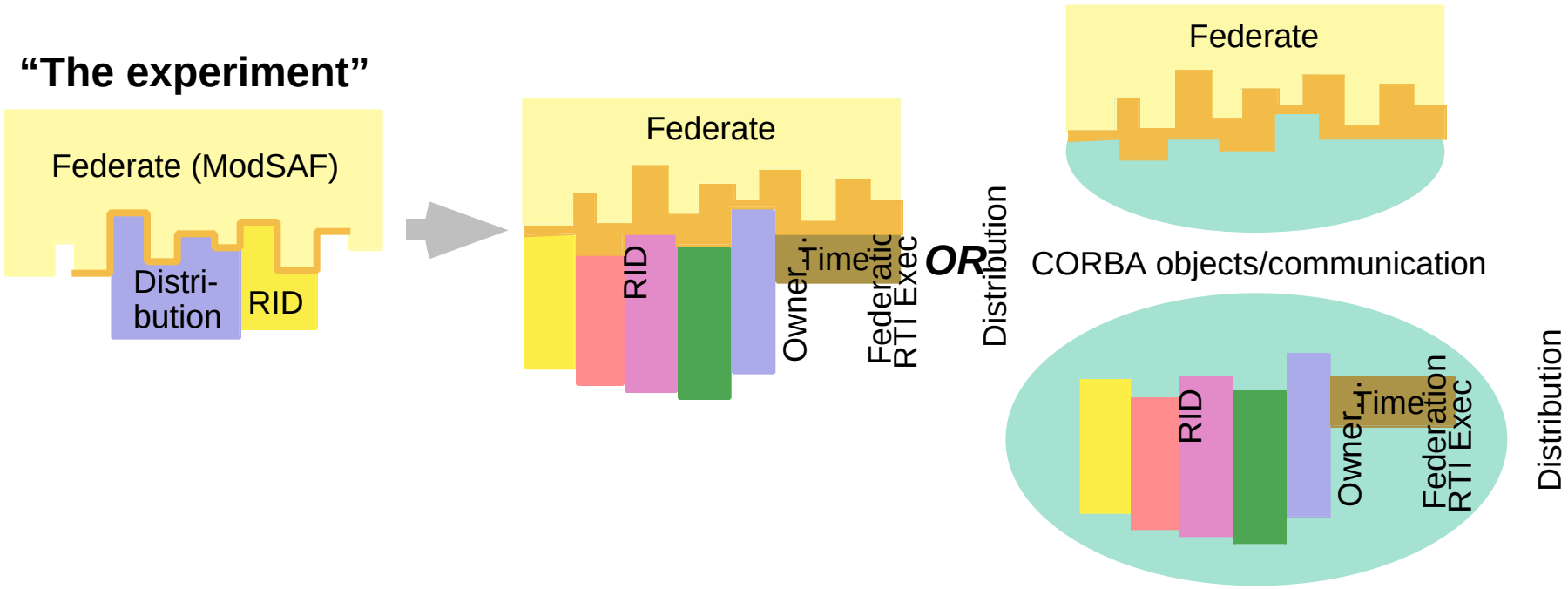
Proposed Design Concepts for RTI 1.0

- C++ as primary interface
  - Ada95 bindings
  - IDL/CORBA “cap”
- No CORBA within the RTI
- RTI code executes within federate’s process (although other models can be supported)
- Reuse of code from 0.3x series objects
  - RID
  - Declaration and Object Management as well as Data Distribution (from “e” series)
  - Portions of Time and Ownership Management
- Changes to support fully distributed implementation of some services

DMSO HLA RTI

7/29/96

Conceptual Design for RTI 1.0



DMSO HLA RTI

DMSO RTI Tasks

- RTI Familiarization version (“F” series)
  - C++ interface
    - IDL and Ada95 to follow
  - Functionality emphasis, performance secondary
  - Release timing to be determined
  - Intended to support the RTI evolution process
- RTI 1.0 version
  - Based on the 1.1 Interface Specification and API
  - Functionality with performance
  - Released after the 1.1 I/F spec definition
- Interface Specification
- API Specification

DMSO HLA RTI